



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,128	06/25/2004	James Surjan	P25,624A USA	7387
7590		11/02/2007		
Joseph Posillico Synnestvedt & Lechner 2600 Aramark Tower 1101 Market Street Philadelphia, PA 19107-2950			EXAMINER SELLERS, ROBERT E	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 11/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/500,128	<b>Applicant(s)</b> SURJAN, JAMES	
	<b>Examiner</b> Robert Sellers	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 20-37 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1796

This is responsive to the Request for Continued Examination and amendment filed October 2, 2007. New claims 20-37 requiring "a plurality of aliphatic amines" have been presented which is supported by the original claims and pages 8-9 of the specification. Accordingly, the rejections in the Final rejection mailed April 2, 2007 have been modified to address the newly claimed "plurality of aliphatic amines."

1. The 35 U.S.C. 102(b) and 103(a) rejections over Japanese Patent No. 61-148280, 2001-240837, 57-159866 and 60-258277, Armin et al. Patent No. 6,214,159 and Martin Patent No. 6,572,971 and the Shimbo et al. abstracts are withdrawn for the sake of brevity in deference to the applied prior art hereinbelow more relevant than the newly claimed "plurality of aliphatic amines."

The text of the basis for non-statutory obviousness-type double patenting and sections 112 and 103(a) of Title 35, U.S. Code not included in this action can be found in the non-Final rejection mailed November 17, 2006.

2. The term "cyclohexane" is misspelled in the 1,4-cyclohexan-dimethanol diglycidyl ether of claim 35 according to page 8, line 2 of the specification.

Claims 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. There is no antecedent basis for the "amine" curing agent in claim 20 wherefrom the claims depend which employs the designation "curing agent."

Claims 20-31, 36 and 37 are rejected on the ground of non-statutory obviousness-type double patenting over Surjan et al. Patent Nos. 6,291,555 (claims 1-19) ; 6,403,678 (claims 1, 2 and 8-10) or 6,420,458 (claims 1-12 and 23-26) in view of Coleman et al. Patent No. 6,166,849 and Morgan et al. Patent No. 5,681,128.

The rejection is maintained for the reasons of record set forth in the previous Office actions. The arguments filed October 2, 2007 have been considered but are unpersuasive.

4. Coleman et al. (col. 4, lines 65-66) states that "a plurality of curing agents may be combined to cure a given resin" including aliphatic polyamines (col. 4, lines 40-41). Morgan et al. (col. 8, lines 9-10) discloses a combination of a latent high temperature and latent intermediate temperature curing agents. It would have been obvious to employ a blend of the aliphatic amine curing agents of the Surjan et al. patents as taught by Coleman et al. and Morgan et al. in order to optimize the cure.

5. Furthermore, '[I]t is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose ... [T]he idea of combining them flows logically from their having been individually taught in the prior art

(MPEP §2144.06, Art Recognized Equivalence for Same Purpose:

Combining Equivalents Known for the Same Purpose; *In re Kerkhoven*,

205 USPQ 1069, 1072, CCPA 1980; *In re Crockett*, 126 USPQ 186, CCPA 1960) and *Ex parte Quadranti*, 25 USPQ2d 1071, Bd. Pat. App. & Inter. 1992)."

It would have been obvious to combine two of the aliphatic amines of the Surjan et al. patents to prepare a third adhesive composition including the blend since each individual aliphatic amine is used for the same purpose as a curing agent for epoxy resins.

6. Claims 32-35 are rejected on the ground of non-statutory obviousness-type double patenting over the Surjan et al. patents in view of Gienau et al. Patent No. 6,645,340 and Harman et al. Patent No. 5,962,602 for the reasons of record set forth in the non-Final rejection on pages 5-6 in paragraphs 9-11. Gienau et al. in column 3, line 24 names the cyclohexanedimethanol diglycidyl ether reactive diluent defined in claim 35.

7. Claims 20-31, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surjan et al. '555, '678 and '458 and Surjan et al. Patent Nos. 6,402,434 and 6,416,246 in view of Coleman et al. and Morgan et al. for the reasons of record set forth in the previous Office actions and based on the same reasoning as espoused in paragraphs 3 and 4 hereinabove.

8. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to the claims hereinabove, and further in view of Gienau et al. and Hartman et al. for the same rationale as explained in paragraph 5 hereinabove.

Claims 20-31, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al., Morgan et al., Gienau et al., Hartman et al., European Patent No. 488,949; the Toussaint et al. article, Grieves et al. Patent No. 4,623,702 and Japanese Patent No. 2000-273354 (Japanese '354).

The rejection is applied for the reasons of record set forth in the previous Office actions.

9. Gienau et al., Hartman et al. and Japanese '354 do not recite the claimed "plurality of aliphatic amines." It would have been obvious to employ a blend of the aliphatic amine curing agents of Gienau et al., Hartman et al. and Japanese '354 as taught by Coleman et al. and Morgan et al. in order to optimize the cure.

Art Unit: 1796

Moreover, it would have been obvious to combine two of the aliphatic amines of Gienau et al., Hartman et al. and Japanese '354 to prepare a third adhesive composition including the blend since each individual aliphatic amine is used for the same purpose as a curing agent for epoxy resins.

10. The European patent (page 2, line 32, "at least one aliphatic or cycloaliphatic amine"), Toussaint et al. (a mixture of 2,2,4-trimethylhexamethylenediamine and 2,4,4-trimethylhexamethylenediamine), Grieves et al. (col. 3, lines 24-25, (g) mixtures of isophorone diamine, diethylene triamine and triethylene tetraamine). The European patent further contains an aliphatic multifunctional epoxy resin (page 3, lines 15-17) such as polyglycidyl ether of 1,4-cyclohexanedimethanol (page 3, lines 26-27 and 34-35).

11. Morgan et al., the European patent, Toussaint et al. and Grieves et al. do not recite the claimed epoxy:amine weight ratio of from about 0.5:1 to about 10:1.

It would have been obvious to utilize the aliphatic polyamine blends of Morgan et al, the European patent, Toussaint et al. and Grieves et al. within the epoxy:active hydrogen ratios of Coleman et al. (col. 5, lines 14-16, converted to 0.67:1 to 1.3:1), Gienau et al. (col. 4, lines 62-65, converted to 0.5:1 to 1.25:1) and Japanese '354 (Derwent abstract, converted to 1.6:1 to 10:1) in order to optimize the cure.

Art Unit: 1796

12. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gienau et al., Hartman et al., the European patent, Toussaint et al., Grieves et al. and Japanese '354 as applied to the claims hereinabove, and further in view of Coleman et al. and Morgan et al. for the reasons of record set forth in the previous Office actions and based on the same reasoning as espoused in paragraphs 3 and 4 hereinabove.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Robert Sellers/

Robert Sellers  
Primary Examiner  
Division 1796

rs  
10/31/2007